

Gesneraceae



Kew

March 23 1906

My dear Ridley,

Gamble has found among the  
Acanthaceae a number of specimens of  
Gesneraceae that at Calcutta had  
got by mistake into the wrong order.  
When he mentioned the fact to me  
I suggested that you would probably  
like to see the specimens owing to  
your having dealt with the bulk  
of the order and that it would  
be in any case advisable that  
they should be authentically determined  
by you, seeing that their "numbers"  
would have to be cited in what is  
to be really a reprint of your paper  
in the Materials. In the list  
may be found a list of any of them

being hitherto undescribed  
it would of course be still more  
desirable that you should see them  
since no one could describe them so well  
as you can.

I have therefore had the specimens  
(there are 16 of them) despatched to you  
by post and we should take it  
very kindly if you will be so good as  
to examine and name them and  
if it is needed in any case submit des-  
criptions of them.

Kindly send back the specimens to  
Kew when you are done with them  
and if you will kindly send any  
notes and descriptions that are needed  
to me I shall see that they are  
made over to Gamble

With kind regards

Yours sincerely

D. Train.

H. B. Ridley Esq F.R.S.  
London



Mar. 13,

19.

Dear Mr. Ridley:

Cubitt showed me this morning your letter of Jan. 31. I think that a large part of our collections will be at Kew already. We have, during the past year, been sending a couple of sets of most things to the Gardens at Singapore, so that Burkill could send them along with other collections. I requested that this arrangement be made, because of the difficulty of arranging shipments during war time and because I thought that it might be simpler to have all the plant shipments from the Peninsula coming through Singapore. As soon as I can, I will make you another shipment from among such duplicate Dipterocarp specimens as we have left; but, I am afraid that it will be two or three weeks before this can be done, as I am hurrying to make a start on a short trip to Kuantan.

3. I enclose, for your examination, certain keys which I began in January 1918 and to which I have been adding from time to time. I have been looking over, with great interest, the keys which you sent. I have been finding a number of new species, some of which I have hoped to be able to publish this year. Burkill and I are hoping that we can publish jointly a general treatment of the group, at some time in the not too far distant future. I enclose a number of miscellaneous notes, which may be of interest to you. I am hoping to have several trips into Pahang this year and hope to be able to straighten out a number of intricate points. We have been watching flower-times as closely as we could, and I am trying to time my trips so as to get as many Dipterocarps in flower and fruit as possible.

Sincerely yours,

Forest Research Officer,  
F.R.S.

To. H. N. Ridley, Esq.,  
7, Cumberland Road,  
Kew, S. W., London,  
England.

F20/2

Copy to H. N. Ridley



- a. Lobes of fruiting calyx usually shorter than fruit and not extending beyond it.
- b. Calyx imbricate in bud.
  - c. Calyx-lobes round and recurved; stamens 30-60. ISOPTERA .
  - cc. Calyx-lobes not as above; stamens 10 or 15.
    - d. Appendix of connective short. SHOREA (Thiseltoni).
    - dd. Appendix of connective long. BALANOCARPUS.
- bb. Calyx valvate in bud.
  - c. Calyx connate with fruit. PACHYNOCARPUS.
  - cc. Calyx not connate with fruit. VATICA.
- aa. Lobes of fruiting calyx longer than fruit.
  - b. Calyx-lobes enclosing or partly enclosing fruit.
    - c. With five long wings. DRYOBALANOPS.
    - cc. With two long wings.
      - d. Stipules large, enclosing stem. DIPTEROCARPUS.
      - dd. Stipules small, deciduous. ANISOPTERA.
  - bb. Calyx-tube not enclosing fruit.
    - c. Fruit with five long wings.....PARASHOREA.
    - cc. Fruit with three long wings.....
      - d. Anthers with five pointed appendages. PENTACME.
      - dd. Anthers with less than five appendages. SHOREA.
    - ccc. Fruit with two long wings.
      - d. Calyx imbricate in bud.....HOPEA.
      - dd. Calyx valvate in bud.
        - e. Anthers hairy.....COTYLELOBIUM.
        - ee. Anthers glabrous. ....VATICA.

I am glad to see that you do not include the Ancistrocladaceae with the Dipterocarpaceae. They certainly belong in a separate group.

I realize that there are a number of faults to be found with the arrangement of genera given by Brandis; but, nevertheless, I like it better than any other arrangement which I have seen proposed. There are very good anatomical reasons for keeping the genus Vatica intact, including the sections Retinodendron, Isauxis, and Synaptea. It seems to me a pity to split the genus up. With regard to Pachychlamys, I am not prepared to speak, as I have not yet examined either of the species carefully.

#### ANISOPTERA .

It seems to me that our material shows four species.

One collection, No. 647 (N.S.39), collected from Tebong State Land in 1916 under the name "Mersawa" has leaves very like some forms of Anisoptera thurifera, but the flowers seem different and the fruit is rather small, with very large and coarsely veined wings. I have done nothing with this form, as I thought there might already be some work done on it. Is it, by any chance, your A. laevis ?

Anisoptera thurifera (Blanco) Blume vs. A. glabra Kurz.

I have, ever since I looked over the material at Singapore in 1910, felt that the relationship or possible identity of these two species ought to be cleared up. I copy a note which I set down last year, "Is the type of A. glabra preserved ? and will it be possible to get a photograph or a tracing of it ? If these two names represent the same thing, A. thurifera will have to be the name used, as it is the older name. We have one sheet in our local herbarium named by Ridley at Kew as A. thurifera (C.F.453, collected at Sungei Ujong, Plus River, Perak, 9-7-12, under the name of "Sanie").

Brandis (p.41) refers to Ridley's No.841, from Malacca, as rather doubtfully A. glabra."



DIPTEROCARPUS .

KEY TO SPECIES OF MALAY PENINSULA .

- a. Fruit not angled or winged.
- b. Fruit rounded at base, usually globose, without tubercles or shoulders above. ----- ( *Sphaerales* Dyer ).
- c. Young branches, petioles, and nerves of leaves covered with coarse, stiff, fasciculate hairs.
- d. Fruit glabrous ..... *D. crinitus*.
- dd. Fruit stellate-pubescent ..... *D. Scortechinii*.
- cc. Young branches not coarsely hairy.
- d. Fruit covered with pale, raised, blotches. . *D. verrucosus* n.sp.
- dd. Fruit not as above.
- e. Leaves with 12 or more pairs of nerves.
- f. Leaves oblong-elliptic, their under surfaces sparsely stellate-pubescent ..... *D. Skinneri*.
- ff. Leaves elliptic or ovate-elliptic, their under surfaces puberulous or quite glabrous. *D. sp.* from Pahang.
- es. Leaves with 8-10 pairs of nerves; all parts glabrous. *D. Kerrei*.
- bb. Fruit rounded at base, with 5 angular tuberosities on its upper portion. .... ( *Tuberculati* Dyer ) ..... *D. cornutus*.
- aa. Fruit angled or winged.
- b. Fruit angled. .... ( *Angulati* Dyer ).
- c. Calyx-tube glabrous.
- d. Leaves 2.5 - 3.25 in. long. .... *D. fagineus*.
- dd. Leaves larger ..... *D. sp.* from Kuala Pilah.
- cc. Calyx-tube densely stellate-tomentose. . . *D. oblongifolius*.
- bb. Fruit winged. ( *Alati* Dyer ).
- c. Leaves glabrous.
- d. Young branches with conspicuous tawny-tomentose, oblique annuli. *D. Kunatleri*.
- dd. Young branches not as above.
- e. Young branches becoming glabrous; buds minutely pale canescent. .... *D. grandiflorus*.
- ee. Young branches never becoming glabrous; buds densely sericeous ..... *D. Griffithii*.
- cc. Leaves minutely stellate-pubescent on the lower surface.
- d. Flowers about 1 in. long. .... *D. incanus*.
- dd. Flowers 1.5 in. long ..... *D. alatus*.
- Species of uncertain position ..... *D. rigidus*.

*Species unknown to me - D. costatus & one of Burckills recent collections from Penang.*

This key is merely adapted from that in King. The species which I am proposing to call *verrucosus* is a very distinct thing from Kajang, Selangor. Luckily, I have enough material to send you some. The *D. sp.* from Pahang suggests *D. turbinatus*. I sent some of it to Hillebrand, who says it is not *D. turbinatus*. Have not worked it out yet. Am trying to get more material of it this year. The *D. sp.* from Kuala Pilah needs to be collected again before it is described. *D. Skinneri* and *D. incanus* are unknown to me and included from King's key. *D. incanus* is included, because Brandis credits it with being found in the extreme north end of the Peninsula. *D. Scortechinii* is, apparently, quite common in Selangor. It seems that *D. crinitus* has sometimes been supposed to be present when the species was really *D. Scortechinii*. The species occur together in a number of localities. I see that Brandis credits *D. Hasseltii* to the Peninsula, but I have not yet run across material of it in recent collections.

DRYOBALANOPS .

I have a very distinct new species, from Pahang. Unfortunately, our material is too scanty for me to send any of it on at present. Shall try to get more of it this year.



SHOREA . .

I do not know *S. alba*.

What disposition do you make of *S. eximia*, *S. gibbosa*, *S. Maranti*?

Do you know anything of the *S. longisperma* of Roxb.?

There are apparently several new forms, in this genus, from Pahang. I hope to get more material this year.

I have what seems quite a distinct form from Kajang, Selangor under the name of "Meranti Kait-Kait". It seems to me to be related to ~~S. rigida~~ *S. rugosa* Heim, of Borneo. It is also apparently the same as a tree known by the name of "Meranti Bakau" in the Bindings. I hope to have additional material of this before long.

HOPEA/

I have already written to you about the form known as "Giam".

I believe that we have several other new forms in our collections, but have not yet had time to go into the matter thoroughly.

What disposition do you make of *Hopea Griffithii* Kurz. var. *pedicellata* Brandis?

VATIVA & SYNAPTEA .

*Synaptea cuspidata* and *Vatica stipulata* are unknown to me.

What disposition do you make of *Vatica grandiflora* Dyer and *V. ovalifolia* Ridley?

I was surprised to see that you suggest the identity of *Hopea Pierrei* and *H. intermedia*. I have always thought them sufficiently distinct. *H. Pierrei* seems to me to have broader leaves and rather ~~less~~ larger fruit.



Notes on Dipterocarpaceae.

Anisoptera.

1. Compare material of *A. glabra* Kurz with *A. thurifera* (Blco.) Bl. I believe them to be the same.
2. C.F. 647, from Negri Sembilan, differs from any other Anisoptera in our collection. Is it the same as the *A. laevis*, of Ridley's list?

Balanocarpus.

1. *Balanocarpus Hemsleyanus* King, - It looks to me as though this species and C.F. No. 4001, from Pahang, belonged to the section Brachyptera of the genus Shorea. They are apparently included by Ridley in Pachychlamys.
2. *Balanocarpus anomalus* King and *B. latifolius* Brandis are unknown to me. Would it be possible to get photographs of the types of these two species and of *B. Wrayi* King?

Dipterocarpus.

1. Are *D. Duperreanus* and *D. Scortechinii* the same?
2. Are the types of any of our local species available at Kew?

Dryobalanops.

1. Is it possible to get duplicate material of any of the Borneo species for comparison with our local forms?

Hopea.

1. *Hopea albescens* Ridley. - It is desired to get a picture of the type if possible.
2. *Hopea Lowii* Dyer - A picture of the type is desired. The Singapore specimen labelled with this name seems to be the same as the "Giam" of Pahang and Johore.
3. *Hopea Mengarawan* - The type of this is probably at Leyden. Is there any authentic material at Kew?
4. *Hopea multiflora* Brandis - Is there any duplicate material of this available?

Parashorea.

Is it possible to get a photograph of the type of *Parashorea stellata*?

Shorea.

1. Duplicate material or photographs of types are desired of, - *Shorea scutulata*, *S. glauca*, *S. gratissima*, *S. Ridleyana*, *S. Maxwelliana*, *S. pauciflora*, *S. Kunstleri*, *S. ciliata*, *S. alba*, *S. barbata*, *S. utilis*, *S. costata*, and *S. Thiseltoni*.
2. My present notions of the wood of the different species are as follows:-  
 Hard, brown or yellow woods, - *S. glauca*, *S. materialis*, *S. collina*, *S. ciliata*, *S. barbata*, *S. utilis*, *S. costata*.  
 Soft whitish, yellowish or pinkish woods, of the grade of Meranti; - *S. Maranti*, *S. eximia*, *S. leprosula*, *S. rigida*, *S. sericea*, *S. parvifolia*, *S. acuminata*, *S. macroptera*, *S. bracteolata*, and, possibly, *S. Thiseltoni*.  
 Moderately hard, red woods; - *S. Curtisii*, *S. scutulata*, *S. gratissima*, and the new species called "Meranti Kait-Kait".



Kuala Lumpur,  
13th March, 1917.

Dear Burkill,

Ridley has been through a good many of my dipterocarp specimens here and identifies them as follows:-

N.S. 5, 12, 29, 34, 53.	Shorea acuminata
N.S. 6, 17, 18, 21, 30.	" macroptera
N.S. 8, 10, 14, 24, 59.	" bracteolata
N.S. 31, 38, 54, 57.	" sericea
N.S. 32, 37, 48, 52, 58.	" glauca
N.S. 43.	" leprosula
N.S. 49, 62	" <b>Curtisii</b>
N.S. 64, 65	" ciliata
N.S. 7, 41, 42, 47, 60	Dipterocarpus crinitus
N.S. 25	D. pterygocalyx
N.S. 26	D. <b>Kunstleri</b>
N.S. 44, 55	D. cornutus
N.S. 68	Hopea intermedia
N.S. 16, 61	Anisoptera costata.

These were of course named without in most cases other specimens to compare with them. I am quite unable to see any difference between S. glauca and S. leprosula, and think all are the latter. The fruits don't agree with S. glauca, as two of the fruiting calyx lobes are minute in comparison with the other three (vide Materials).

You have identified N.S. 51 as S. rigida and N.S. 62 as S. **Curtisii**. Ridley agrees with the latter, but seems pretty positive that the former is not rigida, and suggests the plant may even be a Hopea.

If you would kindly look into the matter of glauca and leprosula, and could also let me know which of your identifications agree with Ridley's I can get on with preparing the wood specimens for our museum.

Kind regards to Mrs. Burkill.

Yours sincerely,

*Ridley*



From. The Forest Botanist,  
Forest Research Institute, Kepong.

To. E. J. H. Corner Esq.,  
Singapore.

Your 26/35 in of 24<sup>th</sup> June  
of dipterocarps

I acknowledge with thanks receipt of the botanical material concerned for which the following are my identifications -

Herbarium Number	Vernacular name supplied	Preferred Vernacular Name in F.M.S. (if any)	Botanical Identification.	Family
S'p. 34695	mersawa		Anisoptera costata Korth.	Dipterocarpaceae
34659	meranti sarang punai		Shorea parvifolia Dyer.	"
34642			Shorea gratissima Dyer.	"
34918	keruing gasing		Dipterocarpus penangianus Foxw.	"
34936	seraya		Shorea Curtisii Dyer.	"
34959	resak laru		Vatica Maingayi Dyer.	"
34960	keruing gasing		Dipterocarpus penangianus Foxw.	"
34979	meranti tembaga		Shorea lepresula Miq.	"
34978	Merawan		Hopea Griffithii Kurz.	"
34976	seraya		Shorea Curtisii Dyer.	"
34974	seraya		Shorea Curtisii Dyer.	"
35336	seraya		Shorea Curtisii Dyer.	"
35320	resak laru		Vatica pallida Dyer.	"
S.n.	keruing gasing		Dipterocarpus penangianus Foxw.	"
S.n.	keruing gasing		Dipterocarpus penangianus Foxw.	"

30 / 6 / 38.

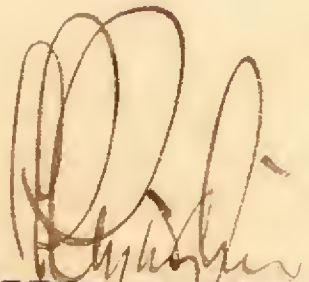
Forest Botanist.

dh.

20/8



Herbarium Number	Vernacular name supplied	Preferred Vernacular Name in F.M.S.(if any)	Botanical Identification	Family
— 32989	-	meranti tembaga	Shorea leprosula Miq.	Dipterocarpaceae
— 33462	chengal pasir	chengal pasir	Hopea odorata Roxb.	"
— 33468	terbak	mersawa	Anisoptera sp. aff. A. costata Korth. and A. oblonga Dyer (vide Gard. Bull.8:11 - 13)	"
— 33476	chengal kampong	chengal pasir	Hopea odorata Roxb.	"
— 33524	kuing	keruing	Dipterocarpus Skinneri King var hirta Ridl.	"
— 33557	-	-	Shorea gratissima Dyer	"
— 33558	balau	balau bukit	Shorea Foxworthyi Sym.	"
— 33559	-	balau tembaga	Shorea ? elliptica Burck	"

  
 FOREST BOTANIST.

720/9

Ms.



*Dipterocarpus*

470/38.

15th October

38.

Dear Sirs,

With reference to your letter of October 7th the specimen of "Yang Sean" has been identified by the Forest Botanist, Kepong as

Dipterocarpus gracilis, Blume

(also known under the name of Dipterocarpus pilosus).

It occurs from Burma and the Andaman Islands through the Malay Peninsula, Sumatra and Borneo, to the Philippines.

Yours faithfully,

*W. L.*  
Curator of the Herbarium.

East Asiatic Co.Ltd.,  
Produce & Wood Department,  
12 Raffles Quay,  
SINGAPORE.

f20/10



It is requested that the following number be quoted in the reply to this letter, and that replies be addressed to the office, and not to individuals by name.

No. 44 in F.R.I. 35/38.

FOREST RESEARCH INSTITUTE,  
KEPONG, SELANGOR, FED. MALAY STATES.

12th October, 1938

Your 470/38

Dear Henderson,

This is Dipterocarpus gracilis Bl. (= D. pilosus Auct.). It occurs from Burma and the Andaman Islands, through the Malay Peninsula, Sumatra, and Borneo, to the Philippines.

Yours sincerely,

M.R. Henderson, Esq.,  
Botanic Gardens,  
Singapore.



W.3.

# THE EAST ASIATIC COMPANY LIMITED.

(INCORPORATED IN DENMARK)

HEAD OFFICE:  
COPENHAGEN.

LONDON OFFICE:  
UNITED BALTIC CORPORATION, LTD.  
158 FENCHURCH STR. EC. 3

TELEGRAPHIC ADDRESS:  
ASIATICO SINGAPORE.

SCOTT CODE 10TH ED., BOE CODE.  
LOMBARD CODE, BENTLEY'S COMPL. PHRASE CODE,  
ACME CODE.

TELEPHONE NUMBERS:  
5321-5322-5323-5324.

*Singapore Branch*

12, RAFFLES QUAY  
(P. O. BOX NO. 158)

HF/RE

7th October, 1938.

Please address reply to

PRODUCE & WOOD DEPARTMENT.

The Director,  
Botanic Gardens,  
SINGAPORE.

Dear Sir,

With reference to telephone conversation we beg to send you herewith by messenger one crate containing leaves and fruits of a tree, which in Siam is called "Yang Sean".

The samples were collected on 12th April from two different trees in the Changwad Surashtra Dhani (Southern Siam) on dry, not inundated ground, between 8° and 9° latitude. Altitude about 230 - 260 feet.

We ask you to be kind enough to inform us of the Scientific Name and also, if possible, if the species in question is growing in the F.M.S., Burma and the Philippine Islands.

If possible, we should like to send one of the samples back to Siam.

Thanking you for your kindness,

We are, dear Sir,

Yours faithfully,  
per pro. THE EAST ASIATIC CO., LTD.

COPIED

F20/12



470/38.

10th October

38.

Dear Symington,

Herewith a specimen for identification, please,  
sent in by the East Asiatic Company.

They say the specimens were collected from  
two different trees, but obviously they are the  
same species. They wish to know the range of the  
species - whether it occurs in Burma, Malay Penin-  
sula and Philippines.

Please keep the specimen.

Yours sincerely,

C.F. Symington, Esq.,  
Forest Research Institute,  
Kepong,  
SELANGOR.



T

G 39

# MEMORANDUM

From

B.G.S.

To

C.F.Symington, Esq.,

Forest Research Institute ,

3rd Nov. 1938

Kepong.

Dear Symington,

Very many thanks for identifications of  
Dipterocarps. I shall be able to get on with tree labelling  
at Bukit Timah.

Sarawak numbers 36051 and 36052 are both sterile.  
The local forest guard supplied the information that the flowers  
were white and this was put on the field labels. I am sending  
a little more of these two as I think Md. Nur was a bit  
parsimonious. If he was so with others, please let me know -  
I did not check what was sent.

Dipterocarpaceae

h/oc



No. 48 in F.R.I. 35/38

1st November, 1938

MS

51/063



Herbarium Number	Vernacular name supplied	Preferred Vernacular Name in F.M.S.(if any)	Botanical Identification	Family
S'pore Nos.				
✓ 34782		seraya	Shorea Curtisii Dyer	
✓ 34783		"	Shorea Curtisii Dyer	
✓ 34784		"	Shorea Curtisii Dyer	
✓ 34785		"	Shorea Curtisii Dyer	
✓ 34791		meranti sarang punai	Shorea parvifolia Dyer	
✓ 34792		seraya	Shorea Curtisii Dyer	
✓ 34793		"	Shorea Curtisii Dyer	
✓ 34794		"	Shorea Curtisii Dyer	
✓ 34795		"	Shorea Curtisii Dyer	
✓ 34798		"	Shorea Curtisii Dyer	
✓ 34799		"	Shorea Curtisii Dyer	
✓ 35000		nemesu	Shorea pauciflora King	
✓ 35563		seraya	Shorea Curtisii Dyer	
✓ 35564		"	Shorea Curtisii Dyer	
✓ 35565		"	Shorea Curtisii Dyer	
✓ 35581		melantai	Shorea macroptera Dyer	
✓ 35582		meranti tembaga	Shorea leprosula Miq.	
✓ 35588		seraya	Shorea Curtisii Dyer	
✓ 35589		"	Shorea Curtisii Dyer	
✓ 35590		"	Shorea Curtisii Dyer	
✓ 35591		melantai	Shorea macroptera Dyer	
✓ 35593		meranti sarang punai	Shorea parvifolia Dyer	
✓ 35618			Vatica sp.	
✓ 35625			Hopea sp.n.	
✓ 35639			Dipterocarpus oblongifolius Dyer	
✓ 35695			Hopea ? pachycarpa (Heim) Sym.	
✓ 35697			Dryobalanops aromatica Gertn.f.	
✓ 35702			Dryobalanops aromatica Gaertn.f.	
✓ 35725			Dryobalanops lanceolata Dyer	
✓ 35726			Hopea sp.n. (Pierrei group)	
✓ 35903		seraya	Shorea Curtisii Dyer	
✓ 35918		resak laru	Vatica Maingayi Dyer	
✓ 35919		seraya	Shorea Curtisii Dyer	
✓ 36051			Shorea argentifolia Sym. (Ms.)	

? flowers



Herbarium Number	Vernacular name supplied	Preferred Vernacular Name in F.M.S.(if any)	Botanical Identification	Family
S'pore Nos.				
✓ 36052			Shorea ? compressa Burck	? flowers
✓ 36058			Shorea seminis (De Vreise) V.Sl.	
✓ 36071			Shorea argentifolia Sym. (Ms.)	
✓ 36072			Shorea argentifolia Sym. (Ms.)	
✓ 36086			Shorea Gysbertsiana Burck	
✓ 36087			Shorea Martiniana Scheff.	
✓ 36091			Shorea aff. S. gibbosa Brandis	
✓ 36101			Shorea pauciflora (Bornean form)	
36102			Shorea leprosula Miq.	
✓ 36103			Shorea sp.n.	
✓ 36106			Shorea aff. S. gibbosa Brandis	
✓ 36108			Hopea dryobalanoides Miq.	
✓ 36109			Dipterocarpus sp.	

  
Forest Botanist.

/10/38.

MS



MEMORANDUM

G 39

From

Botanical Gardens,

Singapore,

6th January 1939.

To

C.F. Symington, Esq.,

Forest Research Inst.,

Kepong, Selangor.

Dear Symington,

Many thanks for determinations of Dipterocarps  
in your 71 in F.R.I. 35/38.

Yours.

*Handwritten signature*

*Handwritten signature*



MEMORANDUM

From

To

C. F. Symington

Dear Symington

- Many thanks for determination of Dipteroscopo  
in June 76 in F.R.I. 35/88

Yours

Hugh

Pl. G. H.



It is requested that the following number be quoted in the reply to this letter, and that replies be addressed to the office, and not to individuals by name.

No. 71 in F.R.I. 35/38.

FOREST RESEARCH INSTITUTE,  
KEPONG, SELANGOR, FED. MALAY STATES.

3rd January, 1939.

Dear Henderson,

I received the 15 duplicates of dipterocarps all right but was expecting a covering memo. Your note of 24th inst. makes things clear.

-----  
2. I am attaching a list of determinations.

3. Yes, I think it is quite common for dipterocarps to fail to set fruit, particularly when flowering has been rather sporadic. I think in most cases the fruits start to develop but insect attack makes them fall early, sometimes when very small, and may finish off an entire crop.

-----  
4. Thank<sup>you</sup> for the volume of Scheffer which I am now returning. I am afraid I don't know what Scheff. in Flora lili (1870) refers to. It includes something about dipterocarps and I wanted to find out more about it. I'll try Buitenzorg.

*sent yesterday!*

Yours sincerely,

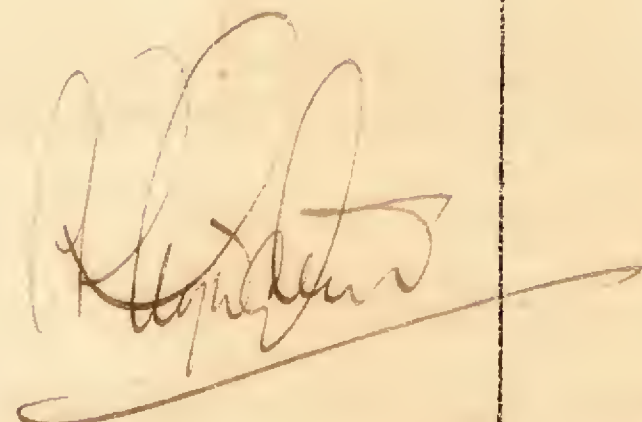
M.R. Henderson, Esq.,  
Botanic Gardens,  
Singapore.

F20/20

dau



Herbarium Number	Vernacular name supplied	Preferred Vernacular Name in F.M.S.(if any)	Botanical Identification	Family
S. 35566		seraya	Shorea Curtisii Dyer	Dipterocarpaceae.
S. 35567		nemesu	Shorea pauciflora King	::
S. 35569		keruing gasing	Dipterocarpus penangianus Foxw.	::
S. 35571		seraya	Shorea Curtisii Dyer	::
S. 35572		( a merawan )	Hopea Griffithii Kurz	::
S. 35574		seraya	Shorea Curtisii Dyer	::
S. 35575		seraya	Shorea Curtisii Dyer	::
S. 35576		( a merawan )	Hopea Griffithii Kurz	::
S. 35577		seraya	Shorea Curtisii Dyer	::
S. 35578		nemesu	Shorea pauciflora King	::
S. 35579		seraya	Shorea Curtisii Dyer	::
S. 35580		seraya	Shorea Curtisii Dyer	::
S. 35585		meranti tembaga	Shorea leprosula Miq.	::
S. 35587		seraya	Shorea Curtisii Dyer	::
S. 35592		seraya	Shorea Curtisii Dyer	::





FLOWERING YEARS OF DIPTEROCARPUS IN MALAYA

- 1879 *Vatica pallida*, Dyer. at Penang in August. test spec. in Forst<sup>e</sup> Herb.
- 1881 *Balanocarpus penangianus* at Penang in April - Kings Coll. 1534
- Hopea intermedia*, King at Pinerong, Johore, in April - ? Cantley's Collector
- 1882 *Dipterocarpus ~~fagifolius~~ fagifolius*, King in Larut in October - Kings Collector - 3527
- Anisoptera Curtisii*, Dyer in Larut - ~~from~~ Nov-Dec. -do- 3618, 3706.
- Shorea Ridleyana*, King in Larut in Nov. -do- 3617, 3571
- ,, ~~Mangrove~~ *Kunstlerii* in Larut - fr. in Dec - spec. in Forst<sup>e</sup> Herb.
- Hopea micrantha*, Hook.f. in Larut - in Oct. Kings Collector
- ,, mengarawan at Pinerong, Johore, in Feb. ? Cantley's Collector.
- Balanocarpus penangianus* - in Larut in September - spec in Forst<sup>e</sup> Herb.
1883. *Retinodendron Kunstlerii* - in Larut in fruit Dec - Kings Collector
- Shorea macroptera*, Dyer in Larut in fruit Jan. -do- 3742
- ,, maxwelliana in Larut in fruit Jan. -do- 3744
- ,, *Kunstlerii* in Larut in fruit Dec -do- 3705
- Vatica Kunstlerii* in Larut in fruit Jan. -do- 5338
- Hopea intermedia* in Larut in fruit Jan -do- 3709
- ,, nervosa in Larut in fruit Dec ? -do- 3690



1884	<i>Dipterocarpus oblongifolius</i> Bl.	Trengganu old fruit in Aug.	Ridley	
	<i>Ancestroclades extensus</i>	in Larut in flower in Aug.	Kings Collector	6452
	<i>Pachynocarpus Wallichii</i>	in Larut in young fruit Jan.	-do-	5423
	" "	? in flower	Scortechini	822
	<i>Vatica reticulata</i> , King	in Larut in fruit Dec	Kings Collector	6969
	<i>Retinodendron pallidum</i>	Penang at Waterfall in flower Dec	Curtis	117
	" "	" Govt. Hill in flower Dec	-do-	1469
	" <i>Kunstleri</i>	in Larut in flower Jan.	Kings Collector	
	<i>Balanocarpus Curtisii</i> , King	in Perak in flower Sept.	-do-	6543, 3294
	" <i>penangianus</i>	Penang on Govt. Hill in fruit Sept.	Curtis ?	
1885	<i>Dipterocarpus carynatus?</i>	Singapore at Changi if flower-	March Hullett	
	" <i>grandiflorus</i>	Penang - in fruit- Sept.	Curtis	424
	" "	Malacca, Seladan - in flower - Jan.	Cantleys Collector	547
	" <i>Kunstleri</i>	Perak, Gunong Bubu - in fruit - May	Kings Collector -	7606
	<i>Ancistrocladus extensus</i>	Singapore, at Changi in fruit, March -	Hullett	
	" "	Malacca, Bukit-banas, in fruit. March -	Cantleys Collector -	914
	<i>Anisoptera Curtisi</i>	Penang, Muka head, in fruit, Sept.	Curtis	428
	" <i>glabra</i>	Malacca, Merlimau - in fruit, <del>Malacca</del> Aug.	Cantleys Collector -	2160
	<i>Vatica perakensis</i>	Larut, in flower, April	Kings Collector	7549
	"			



F30/24

1885	<i>Vatica Lowii</i>	Larut in flower - April	Kings Collector	7596
	<i>Shorea leprosula</i>	Perak, Gopeng- in fruit, September	-do-	8132
	.. ..	Larut in fruit - July	-do-	7905
	.. <i>Curtisii</i>	Perak, Tiru- in fruit- Sept	-do-	8143
	.. ..	Penang, muka head, in fruit, Sept.	Curtis	427
	.. <i>parvifolia</i>	Penang, Govt. Hill- in flower- March-April	Curtis	201
	.. <i>acuminata</i>	Perak in fruit - August	Kings Collector	8009
	.. <i>macroptera</i>	Perak, in flower - March	-do-	7429
	.. ..	Perak, in flower - April	-do-	7343
	.. <i>pauciflora</i>	Penang, Govt. Hill - in flower- Feb.	Curtis	1520
	.. <i>bracteolata</i>	Penang, Telok Pahang - in fruit- July	-do-	322
	.. <i>glauca</i>	Pangkor, Gunung Tunggal- in fruit, August	-do-	572
	.. ..	? Penang, Bukit Kawan, in fruit - August	-do-	372
	.. <i>costata</i>	Penang, Govt. Hill - in flower, February	-do-	199
	.. <i>bracteolata</i>	Perak in fruit- July	Kings Collector,	7717
	.. <i>Thiseltonii</i>	Perak, Kinta, in fruit, Sept.	-do-	8162
	<i>Balanocarpus penangianus</i> ,	Penang, Telok Bahang, fallen fruit, Sept.	Curtis	429
	.. <i>maximus</i>	Perak, in flowers, August	Kings Collector	8000
	.. <i>Wrayi</i>	Penang, Rd. to West Hill, fruit, October	Curtis	



730/25

1885	<i>Parashorea stellata</i>	Larut, in flower, April	Kings Collector	7505
	<i>Hopea Curtisii</i>	Perak, Kinta, in fruit, September	-do-	8161
	,, <i>micrantha?</i>	Perak, Gopeng, in fruit, September	-do-	8170
	,, <i>intermedia</i>	Penang, Muka Head - in fruit, September	Curtis	425
	,, <i>Griffithii</i>	Penang, Govt. Hill, in fruit, June	Curtis	266
	,, <i>mengarawan</i>	Penang, Sungei Penang, in flower	Curtis	1403
1886	<i>Anastrocladus extensus</i>	Penang, Penara Bukit, in fruit, March	Curtis	774
	<i>Pachyrocarpus Wallichii</i>	Perak, in flower, April	Kings Collector	8783 or 8983
	<i>Shorea leprosula</i>	Larut in flower, May	-do-	7646
	<i>Hopea intermedia</i>	Penang, Govt. Hill in flower May - Sept.	Curtis	1398
1887	<i>Retinodendron pallidum</i>	Penang, Telok Bahang, in flower, March	-do-	<del>1226</del> 1226
	<i>Shorea pauciflora</i>	Penang, Govt. Hill in flower, March	-do-	1537
1888	<i>Dipterocarpus crinitus</i>	Malacca, Seduan, in fruit October	Derry	119
	,,	,, Merlimau, in fruit, July	-do-	55
	,, <i>Skinnerii</i>	Penang, West Hill, in flower, April	Curtis	1403
	,,	,, in fruit, August	-do-	1403
	,, <i>Kerrii</i>	Dindings, Gunung Tunggai, in fruit, July	-do-	1561
	,, <i>cornutus</i>	Penang, Waterfall, in fruit, April	-do-	1402
	,, <i>fagineus</i>	Penang, Govt. Hill, in flower, April	-do-	1401



720/26

1888	<i>Dipterocarpus grandiflorus</i>	Penang, Muka Head, in fruit, July	Curtis	424
	,, <i>Kerrii</i>	Penang, Waterfall, in fruit, August	-do-	1653
	<i>Ancistroclades extensus</i>	Perak, Taiping, in flower, May	Wray	1862
	<i>Anisoptera Curtisii</i>	Penang, Govt. Hill, in flowers, July,	Curtis, EMM	85 & 428
	<i>Vatica perakensis</i>	Perak, Waterfall, in fruit, June	Wray	2264
	,, ,,	,, ,, in fruit August	-do-	2837
	,, <i>nitens</i>	Penang, Telok Bahang in fruit, Jan	Curtis	1404
	,, <i>Curtisii</i>	Penang, Waterfall, in fruit, June	-do-	1579
	<i>Shorea scutulata</i>	Penang, Govt. Hill in flower, April	-do-	1396
	,, ,,	,, ,, in fruit, July	-do-	,,
	,, <i>Curtisii</i>	Penang, Govt. Hill, in fruit, July	-do-	1394
	,, ,,	,, ,, in flower, April	-do-	,,
	,, ,,	,, ,, in flower	-do-	1395
	,, ,,	,, ,, in fruit July	-do-	,,
	,, <i>parvifolia</i>	Penang, Govt. Hill in flower April	-do-	301
	,, ,,	Malacca, Merlimau in fruit, June	Derry	26
	,, ,,	Johore, Pinerong in bud	Cantleys collector	



1888

<i>Shorea macroptera</i>	Singapore Gardens, in fruit , January	Fox	2027
,,	Penang, Waterfall in flower, March	Curtis	1392
,, <i>bracteolata</i>	Penang, Waterfall ? in flower, April	Curtis	1405
,, <i>glauca</i>	Dindings, Pangkor, in flower, July	,,	372
,, <i>ciliata</i>	Penang, Govt. Hill in flower, June	,,	1578
,, <i>utilis</i>	Penang , Telok Bahang, in flower, July	,,	423
<i>Balanocarpus Curtisii</i>	Penang, Telok Bahang, in fruit, July	,,	1391
,,	Perak , in flower, August	Wray	2860
,, <i>penangianus</i>	Penang in flower March	Curtis	1393
,, <i>anomalus</i>	Lankawi , in flower, August	,,	1654
<i>Vatica perakensis</i>	Perak in fruit, June	Wray	2264
,,	Perak in fruit August	Wray	2857
<i>Hopea Curtisii</i>	Penang, Waterfall, in fruit, July	Curtis	1562
,, <i>intermedia</i>	Penang in flower, April? in flower July	,,	1398

1889

<i>Ancistrocladen extensus</i>	Malacca in flower	Hervey	
<i>Pachynocarpus Wallichii</i>	Singapore, Changi, in flower, May	Goodenough	
<i>Vatica nitens</i>	Penang, Telok Bahang, in fruit, July	Curtis	1404
<i>Shorea macroptera</i>	Malacca, Selandar, in fruit, June	Derry	187

720/23



1889	Balanocarpus Wrayi	Larut	fruit	Wray	
	Isoptera borneensis	Perak	in flower, May	..	3426
	<del>Pentaceae</del> <sup>m</sup> malayana	Lankawi	in flower, November	Curtis	2095
1890	Dipterocarpus crinitus	Malacca	, gedanan, in young fruit, April	Derry	
	Ancistrocladus extensus	Singapore, Changi,	in fruit	Ridley	3810 & 1901
	..	Siam, Bangtaphanoi	, in fruit, March	..	with
	Vatica cinerea	Lankawi,	in fruit, September	Curtis	2514
	.. Curtisii	Penang, Govt. Hill,	in flower, August	Curtis	
	Retinodendron pallidum	Penang, Govt. Hill,	in flower, March	Curtis	
	Balanocarpus hemsliyanus	Province Wellesley,	in fruit, November,	Curtis	2512
1891	Dipterocarpus crinitus	Pahang, Tahan Road,	in young fruit,	Ridley	2621
	.. cornutus	Pahang, Pulau Tawan,	fruit	..	
	.. ..	Lankawi, Suran Bay,	fruit, April	..	15796
	.. ..	Singapore, Changi,	fruit, May	..	
	.. oblongifolius	Pahang, Kuala Tembeling,	in young fruit	..	2582
	.. ..	Pahang, Kuala Luit	in flower, July	..	..
	.. grandiflorus	Perak, Tea Gardens	in flower	..	



1891	<i>Dipterocarpus grandiflorus</i>	Birdings in fruit	Derry	
	.. Griffithii	Pahang, Kuala Glanggi, in fruit, August,	Ridley	
	<i>Ancistrocladus extensus</i>	Malacca, Batu Tiga, in flower, March,	Holmberg	MM 771
	.. ..	Pahang, Pekan, in flower	Ridley	
	<i>Anisoptera glabra</i>	Malacca, Selandan, in fruit, July	Holmberg	841
	.. costata	Malacca, Batu Tiga, in flower, March	..	768
	<i>Reclinodendron Scortechinii</i>	Pahang, Tahan Road, in fruit, July	Ridley	2438
	<i>Hopsea micrantha</i>	Malacca, Sungai Udang, in flower, June	Holmberg	820
1892	<i>Dipterocarpus Kerrii</i>	Malacca, S. Udang in fruit, June	Derry	1032
	.. cornutus	Singapore, Changi, in fruit, May	Ridley	
	.. ..	Perak, Ulu Selama, young fruit, May	Wray	4160
	.. grandiflorus	Perak, Waterfall, fruit May	Wray	4057
	.. ..	Perak fruit, April	..	4031
	<i>Ancistrocladus extensus</i>	Penang, Penara Bukit, fruit, March	Curtis	77
	.. ..	Penang, Pulau Boetoeng, fruit, March	..	
	.. ..	Singapore, Changi, flower	Ridley	



1892	<i>Anisoptera glabra</i>	Malacca, Machap, in fruit, October	Derry	1166
	<i>Pachynocarpus Wallichii</i>	Johore, Kota Tinggi, fruit, Dec	Ridley	
	.. ..	Johore, Kuala Sembrong, fruit, Oct.	Lake & Kelsall	
	.. ..	Malacca, S. Udang, flower	Derry	961
	.. ..	Singapore, Chua Chu Kang, in flower, Oct.	Ridley	4449
	.. ..	Singapore, Seletar, in flower, April	..	6202
	.. ..	Perak, in fruit, december	Wray	4223
	.. ..	Singapore, Gardens	Ridley	2758
	.. .. <i>ridleyana</i>	Singapore, Bukit Mandai, in fruit	Ridley	3658
	.. ..	Singapore, Changi, in fruit	..	4448 or 2758
	.. ..	Singapore, Changi in fruit,	..	4447
	<i>Vatica cinerea</i>	Lankawi in fruit, March	Curtis	2514
	.. <i>Kelsallii</i>	Johore, K. Sembrong, in flower, November	Lake & Kelsall	4064
	<i>Pentacine malayana</i>	Lankawi, in fruit, March,	Curtis	2095
	<i>Shorea gratissima</i>	Singapore Gardens, in flower, December	Ridley	4446
1893	<i>Dipterocarpus crinitus</i>	Malacca, Ayer Panas, in young fruit, July	Goodenough	1292
	.. <i>grandiflorus</i>	Malacca, Sedanan in fruit, March	Derry	1091



1893	<i>Dipterocarpus grandiflorus</i>	Kedah Peak, in fruit, June	Ridley	
	" "	Penang, Govt. Hill, in flower, February	Curtis	424
	" alatus	Tongkah, puket, in flower, February	"	2923
	<i>Ancistrocladus extensus</i>	Singapore, Changi in fruit	Ridley	3810 or 1901
	" "	Poongah in fruit, February	Curtis	2936
	<i>Pachynocarpus Wallichii</i>	Singapore, Tampinis Road, in young fruit	Ridley	4739
	" "	Singapore, Teas in fruit, March	Goodenough	5075
	" "	Singapore, Pulau Seletar, in flower	Ridley	4942
	" "	Singapore, Kranji, in fruit	Goodenough	
	" "	Penang in fruit, July	Curtis	1161
	<i>Vatica pallida</i>	Penang flowers & fruits, May	Forst. Herb.	117
	" nitens	Penang, Telok bahang, in flower, April	Curtis	1404
	" "	" " in fruit, August	"	"
	" Curtisii?	" " in fruit, August	"	
	<i>Retinodendron pallidum</i>	Penang, Waterfall Garden, in flower Feb.	"	117
	" Scortechnii	Poongah in flower, February	"	2934
	<i>Shorea scutulata?</i>	Penang, Govt. Hill, in flower, March	"	
	" parvifolia	Malacca, Ayer Panas, in fruit, July	Goodenough	1290



1893

<i>Shorea parvifolia</i>	Penang	in flower, May	Forest. Herb.	19
.. <i>macroptera</i>	Penang, waterfall,	in flower, March	Curtis	1392
.. ..	Singapore, Chua Chu Kang,	in fruits, March,	Goodenough	4737
.. ..	Malacca, Ayer Panas,	in fruit, July	..	1326
.. ..	Penang, Telok Bahang,	in flower, June	Curtis	1392
.. <i>pauciflora</i>	Penang, Govt. Hill,	in flower	..	1537
.. <i>bracteolata</i>	Penang, Waterfall,	in fruit, May	..	1405
.. <i>macroptera</i>	Penang	in flower, March	Forest Herb.	16
.. <i>Thiseltonii</i>	Penang, Batu Feringhi,	in fruit, August	Curtis	3052
<i>Balanocarpus penangianus</i>	Penang	in flower, March	Curtis	1393
.. ..	..	in fruits, July	..	..
.. <i>Hemsleyanus</i>	..	in fruit, August	..	3052
<i>Hopea macrantha</i>	Singapore Gardens,	in flower, March	Ridley	4738
.. <i>intermedia</i>	Penang, Telok Bahang,	in fruits, July	Curtis	425
.. ..	Malacca, Ayer Panas	in fruit, September	Goodenough	1554
.. <i>Griffithii</i>	Penang	in flower	Curtis	167



1893	<i>Hopea mengarawan</i>	Malacca, S. Udang,	in fruit, August	Goodenough	1447
	" "	Singapore, Chua Chu pang,	in fruit, April	"	5094
	<i>Balanocarpus curtisi</i>	Penang, Waterfall,	in flower, July	Curtis	1406
1894	<i>Dipterocarpus crinitus</i>	Malacca, Gelandau,	in flower, April	Goodenough	1802
	" <i>Kerrii</i>	Singapore, Bukit Timah	fruits	Ridley	6316 & 6687
	" <i>cornutus</i>	-do-	fruits	"	
	" <i>grandiflorus</i>	Johore, T. Kupong,	fruits	"	
	<i>Ancistrocladus extensus</i>	Singapore, Changi,	fruits, February	"	5918
	" "	Penang, Govt. Hill,	flowers	"	10233
	<i>Anisoptera glabra</i>	Singapore gardens,	flowers, October	"	
	<i>Pachynocarpus Wallichii</i>	" Seletar,	flowers	"	6205
	" "	Malacca, S. Udang,	in fruits, July	Goodenough	1968
	" <i>ridleyana</i>	Singapore, Bukit Timah,	in flower	Ridley	6201
	" "	Singapore Gardens,	in flower, April	"	MM 6203
	<i>Shorea parvifolia</i>	Malacca, Sedanan	in bud, April	Goodenough	1795
	" "	Singapore, Bukit Timah	in flower	Ridley	6397
	" "	Singapore Gardens,	in flower	"	6392
	" <i>acuminata</i>	Malacca, Sedanan	in flower, April	Goodenough	1793



1894

*Shorea macroptera*

Malacca, Ayer Panas, in fruit, June

Goodenough 1793

,, ,,

Singapore, Bukit Timah, in fruit

Ridley 6391

,, ,,

Singapore Gardens, in flower

,, 6390

,, *gratissima*

Singapore, Kranji, in flower

,, 6557

,, *parvifolia*

Singapore Gardens, in fruit

Ridley

,, *leprosula*

,, ,, in flower

,, 6387

,, *gibbosa*

,, Rogie in flower, March

,, 6079

,, *pauciflora*

Malacca, gedanan, in flower, April

Goodenough 1795

,, ,,

Singapore Gardens, in flower, April

Ridley 6266

,, *bracteolata*

Malacca, Sungai Baru, in flower, February

Goodenough 1798

,, ,,

Negri Sembilan, B. Tampin, in flower, May

,, 1866

,, *barbata*

Malacca, Batang Malaka, in flower, March

,, 1789

,, *gibbosa*

Singapore, Rogie, in fruit

Ridley 6686 & 6079

,, *rigida*

Singapore Gardens, in flower

,, 6293

*Hopea globosa*

Singapore, Chua Chu Kang, in fruit,

,, 6585

,, *Griffithii*

Penang, Govt. Hill, in flower, March

Curtis 266

,, *mengarawan*

Singapore, Bukit Timah, in flower

Ridley 5843

720/34



1895	<i>Dipterocarpus kerrii</i>	Singapore, Bukit Timah, old fruit	Ridley	6687
	<i>Anisoptera costata</i>	Singapore Gardens, fruit	"	6684
	<i>Hopea intermedia</i>	Perak, Tea Gardens, in fruit, February	"	
1896	<i>Dipterocarpus Scortechinii</i>	Perak, Dusun Tua, in fruit, May	"	
	,, <i>Hasseltii</i>	Kedah, P. Butang Adang, in fruit, April		
1897	<i>Dryobalanops Camphora</i> ,	Selangor, Rawang, in flower	Goodenough	8963
	<i>Dipterocarpus crinitus</i>	Selangor, Gua Batu, in flower, July		
	<i>Pachynocarpus ridleyana</i>	Singapore, Rogie, in fruit	Ridley	8943
	<i>Retinodendron pallidum</i>	Penang, Govt. Hill, in flower, March	Curtis	
	<i>Pentaeme malayana</i>	Lankawi, in flower	(?Ridley)	8389
	,, ,,	Lankawi, in flower, January	Curtis	2095
1898	<i>Dryobalanops camphora</i>	Selangor (?Rawang) in fruit	Goodenough	
	<i>Ancistroclades extenses</i>	Dindings, Lumut in flower, January		
	<i>Shorea parvifolia</i>	Penang, Govt. Hill, in flower, May	Curtis	201, Forest Dept. 19
	,, <i>rigida</i>	N.S. Perhentian Tinggi, in flower, Dec	Ridley	10053
1899	<i>Anisoptera Curtisii</i>	Penang, Govt. Hill, in fruit, Sept.	Curtis	428
	<i>Vatica cinerea</i>	Lankawi, Coah, in flower, February	Curtis	2096, 2798 & 2787
	,, <i>lankawiensis</i>	Lankawi, Coah, in flower, February	"	3410
	<i>Retinodendron pallidum</i>	?Penang Gardens, in fruit, July	Fox	10



530/34

1899	<i>Retinodendron pallidum</i>	Penang, Waterfall, in fruit, July,	Curtis	117
	<i>Shorea sericea</i>	Penang, Govt. Hill, in fruit, September	Fox	98
	.. ..	Penang, Govt. Hill, in young fruit, July	Fox	10457 & 10650
	.. <i>macroptera</i>	Singapore Gardens, in flower	Ridley	10161
	.. <i>rigida</i>	Singapore Gardens, in flower	..	
1900	<i>Dipterocarpus crinitus</i>	Bukit Jotau in flower	Ridley	
	.. <i>oblongifolius</i>	Pahang, Jelei River, in fruit, Sept.	Hill	
	.. <i>grandiflorus</i>	Penang, Batu Feringgi, in fruit, June	Ridley	
	<i>Pachynocarpus Wallichii</i>	Penang, Govt. Hill, in flower, March	Curtis	
	<i>Vatica ovalifolia</i>	Province Wellesley, Nibong Tebal, in flower, Jan.	Curtis	3458
	<i>Retinodendron pallidum</i>	Penang, Gardens, in fruit, Sept.	..	
	.. ..	Penang, Govt. Hill, in flower, March	..	
	<i>Shorea leprosula</i>	Singapore Gardens, in flower.	Ridley	
	<i>Shorea leprosula</i> ?	Malacca, Ayer Panas, in flower, May	Curtis	3486
	.. <i>parvifolia</i>	Malacca, Ayer Panas, in fruit, May	..	3487
	.. ..	Singapore gardens, in flower	Ridley	11237
	<i>Hopea micrantha</i>	Penang, Govt. Hill, in fruit, June	Curtis	266, 1397
	.. <i>globosa</i>	Selangor, Rantau Panjang, in fruit, June	<del>UNKNOWN</del> Mat	



1904

Dipterocarpus fagineus	Penang, Govt. Hill, in fruit, August	Curtis	1401
.. ..	Penang, road to spout, in fruit, July	..	
.. cornutus	Penang, Waterfall, in fruit, September	..	
vatica nitens	Penang, Telok Bahang, in fruit, August	..	1404
Shorea Curtisii	Penang, Govt. Hill, in fruit, August	Curtis	1394
.. sericea	Penang, Telok Bahang, in flower, August	..	431
.. macroptera	Maniot Rd. in fruit, September	..	1110
.. maxwelliana?	Penang, waterfall, in flower, May	Haniff	3655
.. bracteolata	Penang, Gardens, in fruit, May	..	
.. gratissima	Singapore Gardens, in flower, Feb.	Ridley	4446
.. Curtisii	Penang in fruit, July	Forest Herb.	405
.. costata	Penang, Batu Feringgi, in flower, June	Curtis	3651
Balanocarpus penangianus	Penang, Highlands, in flower, April	Haniff	3605
.. ..	Penang, Govt. Hill, in flower, March	Curtis	1
.. ..	Penang, Govt. Hill in flower, July	..	429
.. ..	Penang, Govt. Hill, in flower, March	..	1393
.. Curtisii	Penang, Waterfall, in flower, March	..	1406
Pentecene malayana	Lankawi, in flower, November	..	2095



Feb 28

1902	<i>Dipterocarpus Skinnerii</i>	Province Wellesley, Track Gluger, in fruit, March	Curtis	3734
	<i>Vatica perakensis</i>	Dindings, Lumut, in fruit	"	
1903	<i>Ancistrocladus extensus</i>	Kopah in fruit, Feb.	Haniff	3846
	<i>Pachynocarpus ridleyana</i>	Singapore gardens, in flower,	Ridley	11391
	<i>Pentaene malayana</i>	Kopah in flower, February	Haniff	12639
1904	<i>Shorea gratissima</i>	Singapore gardens, in fruit, September	Ridley	12021
	.. <i>bracteolata</i>	Malacca, Ayer panas, in flower, June	Bland	
	.. <i>ciliata</i>	N.S.		
	<i>Balanocarpus penangianus</i>	N. Sembilan - in flower	Hudson	12016
	<i>Pentaene siamensis</i>	Singapore Gardens - in flower	Ridley	
1905	<i>Shorea macroptera</i>	Penang, Telok Bahang - in fruit - June,	Forest Guard	12721
	<i>Hopea mengarawan</i>	Singapore, Grange Road - in fruit	Ridley	
	<i>Balanocarpus maxumus</i>	Perak in fruit - Feb.	Forest Herbarium	361
	<i>Rentiodendron pallidum</i>	Penang - Telok Bahang - in flower - March	Forest Guard	
1906	<i>Dipterocarpus oblongifolius</i>	Siam - Telahu - in flower	Down	
	<i>Balanocarpus Heinii</i>	Pahang in flower - July	Forest Herbarium	360



1907

<i>Shorea gibbosa</i>	Singapore, Rogie, in flower	Ridley	
.. <i>ciliata?</i>	Pahang in flower, March	Forest Herbarium	
<i>Balanocarpus Heimii</i>	Pahang in flower, July	.. ..	360
.. ..	- Bentong - in flower, July	-	
.. <i>maximus</i>	Pahang in flower & fruit, Sept.	Forest Herb.	360
1908	<i>Balanocarpus Heimii</i>	<del>Malacca</del> Penang, Batu Kawan, in flower	Curtis 273
	<i>Hopea globbosa</i>	Selangor in fruit, March	Forest Herb.
	.. <i>micrantha</i>	Selangor in fruit	-do- 13
	.. ..	Selangor, Rantau Panjang, in fruit	? 13206
1909	<i>Balanocarpus Curtisii</i>	Perak, in fruit, February	Forest Herb. 175
	<i>Pachynocarpus Wallichii</i>	Perak in fruit Feb.	-do- 48
1910	<i>Dryobalanops Camphora</i>	Pahang, Rumpin River, in flower, March	Sanger-Davies
	<i>Shorea collina</i>	Pahang in flower, March, <del>Malacca, Malacca, Malacca</del>	Forest Herb. 319
	.. <i>materialis</i>	Pahang in flower, March	Sanger, Davies
	<i>Pentstemon malayana</i>	Perlis, Chupang, in fruit, March	Ridley 15153
1911	<i>Dipterocarpus Dupreanus</i>	Kedah, Lankaw in fruit	- 15515
	<i>Ancistrocladus extensus</i>	Lankawi, S. Batu Gajah, in fruit, Haniff	Haniff 15513
	<i>Vatica Maingayii</i>	Dindings in fruit, Oct.	Forest, Sanger 413
	.. <i>cinerea</i>	Kedah, Patu Adang, in fruit, April	Ridley 15785



100/40

1911	<i>Vatica lankawiensis</i>	Lankawi, Kuala Kuah, in flower, February,	Haniff,	15542
	<i>Retinodendron Seortechinii</i>	Lankawi, Gunong Raya, in flower	-do-	
	<i>Shorea leprosula</i>	N.S. in fruit, Aug	Forest Herb.	
	.. <i>Curtisii</i>	F.M.S. buas in bud, June	Rahman	
	.. ..	N.S. in flower, June	Forest Herbarium	405
	.. ..	Malacca in fruit, August,	-do-	-do-
	.. ..	Malacca in fruit, August	-do-	406
	.. <i>acuminata</i>	Dindings in flower, December	<del>Wahid</del> Borges	
	.. ..	Tuas, in flower, June	Abdul Rahman	
	.. ..	Dindings in flower, December	Forest Herb.	419
	.. ..	N.S. in fruit, August	-do-	15
	.. <i>macroptera?</i>	Perak, Tuas in flower	Kinsey or Abdul Rahman	
	.. <i>bracteolata</i>	Dindings in fruit, Dec.	Forest Herb.	<del>Wahid</del> 420
	.. <i>ciliata</i>	N.S. in flower & fruit, June	-do-	
	<i>Balanocarpus penangianus</i>	Juaneh in flower, June	Abdul Rahman	
	<i>Payashorea stellata ?</i>	Dindings in fruit, Oct.	Forest ranger	412
	.. ..	Dindings in flower & fruit, Dec	Borges	418
	<i>Pentaeme siamensis</i>	Lankawi in fruit, Feb.	Haniff	15522



1911	<i>Hopea globbosa</i>	Johore, Muar, in flower, April	Curtis	5613
	,, <i>nervosa</i>	Malacca in fruit, August	Forest Herb.	407
	,, sp.	Pahang in flower, Dec	-do-	
1912	<i>Anisoptera thurifera</i>	Perak in fruit, July	-do-	453
	<i>Balanocarpus</i> sp.	N.S. in flower, January	-do-	2
	<i>Shorea barbata</i>	N.S. in fruit, Jan.	-do-	5
	,, <i>leprosula</i>	N.S. in flower, June	-do-	3
	,, sp.	Perak in flower, January	-do-	
	,, sp.	N.S. in fruit, Sept. - Dec	-do-	401
1913				
1914	<i>Dryobalanops camphora</i>	Pahang in flower, December	-do-	416
1915	<i>Retinodendron pallidum</i>	Penang, Govt. Hill, March, in flower	Burkill	
	<i>Shorea gratissima</i>	Singapore Gardens, in flower, Oct.	Burkill, tree No. 1237, 1238, 1239	
1916	<i>Dipterocarpus cornutus</i>	N.S. in flower, May	Forest Herb.	634
	,,	,, in fruit, Aug.	,,	,,
	,,	,, in flower, May	,,	652
	,,	,, in fruit, Aug.	,,	,,
	,,	,, in flower, June	,,	663
	,,	,, in fruit, August	,,	,,



520/22

1916	Dipterocarpus	cornutus	Pahang	in fruit, July	Forest Herb.	1017
	"	crinitus	N.S.	in flower, April	-do-	615
	"	"	"	in fruit, July	-do-	"
	"	"	"	in flower, May	-do-	649
	"	"	"	in fruit, Sept.	-do-	"
	"	"	"	in flower, May	-do-	650
	"	"	"	in fruit, Sept.	-do-	"
	"	"	"	in flower, May	-do-	655
	"	"	"	in fruit, Sept.	-do-	"
	"	"	"	in flower, May	-do-	668
	"	"	"	in fruit, November	-do-	"
	"	"	Selangor	<del>SHAMING</del> in flower & fruit, May,	-do-	736
	"	"	Pahang	in fruit, July	-do-	1016
	"	grandiflorus	N.S.	in fruit, <del>MMMM</del> Aug.	-do-	633
	"	"	Penang,	in fruit, July	-do-	1194
	"	Kerrii	N.S.	in fruit, June	-do-	623
	"	oblongifolius	Pahang	in flower, June	-do-	695
	"	"	"	in fruit, July	-do-	1024



190/43

1916	<i>Dipterocarpus Scortechinii</i>	Selangor,	in flower, fruit, Nov.	Forest herb.	751
	"	"	in <del>MMMMMM</del> flower, November	-do-	752
	<i>Anisoptera costata</i>	N.S.	in flower, April	-do-	624
	"	"	in fruit, Aug	-do-	"
	"	"	in fruit, June	-do-	669
	"	"	in fruit, Aug.	-do-	"
	"	Singapore gardens in flower & fruit		Burkill	
	<i>Anisoptera curtisii</i>	N.S.	in flower, April	Forest herb.	1192
	"	"	in flower	" "	742
	"	Penang, Govt. hill, in fruit, Aug		Burkill	1521
	" glabra	Singapore gardens, in flower April		-do-	
	" "	Singapore, Tampinis, in fruit, Aug		-do-	
	" "	N.S.	in flower April,	Forest Herb.	631
	" "	"	in fruit, August	-do-	"
	" sp.	"	in flower, May	-do-	647
	" sp.	"	in fruit, Aug.	-do-	"
	<i>Balanocarpus Heimii</i>	N.S.	in flower, Dec	-do-	724
	" maximus	Selangor, in flower, Dec.		-do-	738
	<i>Hopea globosa</i>	Perak	in fruit, April	-do-	
	" intermedia	Selangor	in fruit, Aug.	-do-	



1916	<i>Hopea intermedia</i>	N.S.	in fruit, September ,	Forest Herbarium	702
	,, mengarawan	Selangor	in fruit, June,	-do-	729
	,, micrantha	Selangor	in flower, June	-do-	730
	,, ..	Selangor	in fruit, August	-do-	..
	,, ..	Singapore, Bukit Timah,	in fruit, April	Burkill	
	,, Sp.	N.S.	in flower, May	Forest herbarium	659
	,, ..	..	in fruit, August	-do-	..
	,, ..	..	in flower, June	-do-	..
	,, ..	Pahang	in flower, July	-do-	1023
	<i>Pachynocarpus Wallichii</i>	Singapore Gardens	in flower, March-April	Burkill tree Nos. 1077, 1207, 1247, 1265, 1266 & 1270	
	,, ..	..	in fruit, August	..	1270 & 1271
	<i>Shorea barbata</i>	N.S.	in flower, April	Forest herb.	630
	,, ..	..	in fruit, August	-do-	..
	,, ..	..	in flower, May	-do-	653
	,, ..	..	in fruit, Sept.	-do-	..
	,, ..	..	in fruit, August	-do-	664
	,, acuminata	..	in flower, April	-do-	613
	,, ..	..	in fruit, June	-do-	..



1916	<i>Shorea acuminata</i>	N.S.	in flower, May	Forest Herbarium	620
	" "	" "	in fruit, August	-do-	" "
	" "	" "	in flower, May	-do-	637
	" "	" "	in fruit, August	-do-	" "
	" "	" "	in flower, May	-do-	642
	" "	" "	in fruit, Sept.	-do-	" "
	" "	" "	in flower, June	-do-	661
	" "	" "	in fruit, August	-do-	" "
	" "	Selangor	in flower & fruit, June	-do-	731
	" <i>bracteolata</i>	N.S.	in flower, April	-do-	616
	" "	" "	in fruit, July	-do-	" "
	" "	" "	in flower, April	-do-	618
	" "	" "	in flower, April	-do-	622
	" "	" "	in fruit, August	-do-	" "
	" "	" "	in flower, May	-do-	632
	" "	" "	in fruit, July	-do-	" "
	" "	" "	in fruit, August	-do-	644



1909 46

1916	Shorea acuminata	N.S.	in flower, May	Forest Herb.	667
	.. ..	..	in fruit, June	-do-	..
	.. ..	Selangor	in flower, March	-do-	728
	.. ..	..	in fruit, June	-do-	..
	.. ..	..	in flower, April	-do-	740
	.. ..	..	in fruit, Sept.	-do-	..
	.. ..	..	in flower, April	-do-	741
	.. ..	..	in fruit, May	-do-	744
	.. ..	..	in fruit, July	-do-	745, 747, 748, 749 8750
	.. ..	Singapore Gardens	in flower, April,	Burkill tree	1280
		..	in fruit, June	..	..
		..	in flower, April	..	1303
			in fruit, June	..	..
		..	in fruit, Aug.	..	1289
	.. gibbosa	Singapore, Regie	in flower, March	Noor	
		..	in fruit <del>June</del>	<u>Burkill</u>	
	.. ciliata	N.S.	in flowers, June	Forest herb.	698
	.. ..	..	in fruit, October	-do-	..



1916	<i>Shorea ciliata</i>	Selangor	in flower, May	Forest herbarium	732
	" "	" "	? in fruit, June	-do-	"
	" costata	" "	in flower, June	-do-	735
	" "	" "	in fruit, August	-do-	"
	" Curtisii	Penang, Govt. Hill	in fruit, August	Burkill	1547
	" "	N.S.	in flower, May	Forest Herbarium	657
	" "	" "	in fruit, August	-do-	"
	" "	" "	in flower, May	-do-	670
	" "	" "	in fruit, June	-do-	"
	" "	Selangor	in fruit, June	-do-	737
	" Kunstlerii	Perak	in fruit, July	-do-	793
	" leprosula	N.S.	in flower, May	-do-	640
	" "	" "	in fruit, August	-do-	"
	" "	" "	in flower, May	-do-	645
	" "	" "	in flower	-do-	651
	" "	" "	in flower, September	-do-	"
	" "	" "	in flower, May	-do-	656
	" "	" "	in flower, August	-do-	"

530/42



820/48

1916	Shorea leprosula	N.S.	in flower, June	Forest Herbarium	660
	.. ..	..	in fruit, August	-do-	..
	.. ..	..	in flower, June	-do-	666
	.. ..	..	in fruit, August	-do-	..
	.. ..	Selangor	in flower, May	-do-	734
	.. ..	..	in fruit, August	-do-	..
	.. ..	..	in flower, May	-do-	743
	.. ..	..	in fruit, Sept.	-do-	..
	.. ..	Perak	in fruit, July	-do-	782
	.. ..	..	in fruit, July	-do-	1020
	.. ..	Singapore Gardens	in flower, April	Burkill tree	1277
	.. ..	Bemban			
	.. ..	Malacca, Bukit	in fruit, July	-do-	1151
	.. ..	.. ..	in fruit, July	-do-	1153
	.. ..	.. ..	in fruit, July	-do-	1454
	.. macroptera	N.S.	in flower, April	Forest Herb.	614
	.. ..	..	in fruit, May	-do-	..
	.. ..	..	in flower, April	-do-	625
	.. ..	..	in fruit, August	-do-	..



1920/49

1916	<i>Shorea macroptera</i>	N.S.	in March in flower	Forest Herbarium	626
	" "	" "	in fruit, August	-do-	"
	" "	" "	in flower, April	-do-	629
	" "	" "	in fruit, July	-do-	"
	" "	" "	in flower, May	-do-	636
	" "	" "	in fruit, July	-do-	"
	" "	" "	in fruit, August	-do-	"
	" "	Selangor	in flower & fruit, May	-do-	727
	" "	Singapore Gardens	in flower, March	Burkill	trees Nos. 556, 547, 1252, 1250, 1249, 1262 1268, 1272, 1284, 1273 1079 & 1283.
	" "	" "	in fruit, June	-do-	
	" maxwelliana?	Selangor	in flower, March	Forest Herb.	726
	" "	" "	in fruit, June	-do-	"
	" parvifolia	N.S.	in bud, April	-do-	610
	" "	" "	in flower, April	-do-	611
	" "	" "	in fruit, May	-do-	"
	" "	" "	in flower, April	-do-	621
	" "	" "	in fruit, August	-do-	"



1916	<i>Shorea parvifolia</i>	N.S.	in fruit, May	Forest Herbarium	648
	" "	Selangor	in flower, April	-do-	725
	" "	"	in fruit, May	-do-	"
	" "	Selangor	in flower, April	-do-	739
	" "	Pahang	in fruit, July	-do-	1018 & 1019
	" "	Penang, Govt. Hill	in fruit, August	Burkill	1522 & 1535
	" <i>pauciflora</i>	Singapore Gardens	in flower, March	-do- trees nos. 1275 & 1760	
	" "	"	in fruit, June	-do- -do-	
	" <i>rigida</i>	"	in flower, June	-do- trees Nos. 1281 & 566	
	" "	"	in fruit, July	-do- -do-	
	" "	N.S.	in flower, June	Forest Herbarium	639
	" "	"	in fruit, August	-do-	"
	" "	"	in flower, May	-do-	646
	" "	"	in fruit, August	-do-	"
	" "	"	in flower, June	-do-	662
	" "	"	in fruit, August	-do-	"
	" "	"	in flower, July	-do-	665
	" "	"	in fruit, August	-do-	"



F20/51

1916	<i>Shorea sericea</i>	Selangor	in flower, May	Forest Herbarium	733
	" "	"	in fruit, June	-do-	"
	" "	"	in fruit, July	-do-	746 & 1022
	" "	Penang, Govt. Hill	in fruit, August	Burkill	1523
	" <i>scutulata</i>	Penang, Govt. Hill	in fruit, August	-do-	1530
1917	<i>Anisoptera Curtisii</i>	Selangor	in fruit, July	Forest Herbarium	1042
	<i>Balanocarpus Heimii</i>	N.S.	in fruit, January	-do-	723
	" "	"	in flower & fruit, March	-do-	724
	" <i>maximus</i>	Selangor	in fruit, November	-do-	728
	<i>Shorea leprosula</i>	Singapore Gardens	in flower, March	Burkill tree	1274
1918	<i>Dipterocarpus grandiflorus</i>	Penang, Waterfall	in fruit, July	Foxworthy & Burkill	2900
	" "	P. Buleh	in flower, March	Forest Dept.	
	" <i>cornutus</i>	Penang, Waterfall	in fruit, MMY June	Haniff	3754
	" "	Johore	in flower, May	Forest Dept.	
	" <i>fagineus</i>	Penang, Highlands	in flower, May	Haniff	3682
	" "	Penang, Govt. Hill	in fruit, June	-do-	3761
	" "	Penang, Waterfall	in fruit, June	-do-	3756
	" <i>crinitus</i>	Johore	in flower, May	Forest dept.	
	" <i>Kerrii</i>	N.S.	in flower & fruit	-do-	



F20/52

1918	dipterocarpus Scortechinii	gelangor	in flowers and fruit, March	Forest Dept.	
	.. sp.	Penang	in fruit, Foxworthy & Burkill		
	dryobalanops camphora	Johore	in flower, May	Forest Dept.	
	Balanocarpus maximus	Perak	in fruit, May	-do-	
	.. Curtisii	Penang, Waterfall	in fruit, June	Haniff	3749
	.. ..	Penang, Mt. Erskine	in flower, June	-do-	3721
	.. ..	Penang, Mt. Erskine,	in fruit, June	-do-	3722
	.. penangianus	Penang, Govt. Hill	in fruit, June	-do-	3714
	.. ..	Penang, Waterfall	in fruit, June	-do-	3748
	.. ..	-do-	in flower, April	-do-	3403
	.. Curtisii	-do-	in flower, April	-do-	3402
	.. ..	-do-	in flower, April	Burkill	3064
	.. ..	-do-	in fruit	Foxworthy & Burkill	3322
	Pachynocarpus Wallichii	Singapore gardens	in flower, April	trees Nos. 1265, 1266, 1267, 1271	
	.. ..	-do-	in fruit, May		
	Hopea micrantha	Singapore, Bt. Timah	in fruit, May	Burkill	
	Hopea Globosa	Perak	in flower, March-April	Forest Dept.	
	.. ..	-do-	in fruit, May	-do-	



1918	Hopea sp.	Johore	in fruit, May	Forest Dept.	
	Hopea micrantha	Penang, Ayer <del>Itam</del> Itam	in young fruit, June,	Haniff	3732
	Vatica Curtisii	Penang, Waterfall	in fruit,	-do-	3746
	Shorea leprosula	Singapore Gardens			
	.. macroptera	-do-	in flower, April	Burkill tree No.	
	.. ..	-do-	in fruit,		
	.. ..	Penang, Montrots Road	in fruit, July	Foxworthy & Burkill	3306
	.. ..	Penang, Waterfall	in fruit, May	Haniff	3704
	.. ..	Penang, Ayer Itam	in fruit, June	-do-	3731
	.. ..	Penang, Waterfall	in fruit, June	-do-	3747
	.. ..	Penang, Govt. Hill	in fruit, July	<del>MMMM</del> Burkill	3786
	Shorea parvifolia	Penang, Govt. Hill	in young fruit, July	-do-	2892
	.. ..	Penang, Govt. Hill	in young fruit, July	Foxworthy & Burkill	3301
	.. ..	Penang, Govt. Hill	in flower, July	-do-	3319
	.. ..	Penang, Chalet	in flower, May	Haniff	3691
	.. sericea	Penang, Montrots Road	in flower, July	Foxworthy & Burkill	3305
	.. ..	Penang, Govt. Hill	in flower, June	Haniff	3760
	.. scutulata	Penang, Waterfall	in flower, June	-do-	3750
	.. bracteolata	Singapore Gardens	in flower, May	Burkill tree Nos. <del>MM</del> 1794 & 1302	



F20/54

1918	<i>Shorea bracteolata</i>	Penang, Marioto Road	in flower, July	Foxworthy & Burkill	3347
	.. ..	Penang, Ayer Itam	in fruit, June	Haniff	3734, 3736 & 3737
	.. ..	Penang, Waterfall	in fruit, June	-do-	3745
	.. <i>gibbosa</i>	Singapore, Regie	in young fruit, May	Burkill	
	.. <i>Curtisii</i>	Penang, Chalet	in flower, May	Haniff	3681
	.. ..	Penang, Govt. Hill	in fruit, July	Burkill	
	.. ..	Penang, Chalet	in flower, June	Haniff	3707
	.. ..	Penang, Govt. Hill	in flower, June	-do-	3711
	.. ..	Penang, Waterfall	in flower, June	-do-	3758
	.. ..	Penang, Waterfall	in fruit, June	-do-	3763
	.. <i>maxwelliana</i>	Penang, B. Cantong	in flower, May	-do-	3715
	.. ..	Penang, Ayer Itam	in flower, June	-do-	3717 & 3729
	.. <i>ciliata</i>	Penang, Marioto Road	in flower, June	-do-	3771
	.. <i>c/ costata</i>	Penang, Mt. Erskine	in flower, June	-do-	3724
	.. ..	Penang, Ayer Itam	in flower, June	-do-	3733
	.. <i>gracillima</i>	Singapore Gardens	in flower, July	Burkill	tree No.
	.. ..	-do-	in fruit, Sept.		
	<i>Anisoptera Curtisii</i>	Penang, Chalet	in flower, May	Haniff	3692



1918

*Anisoptera Curtisii*

Penang, Mt. Erskine

In young fruit, June

Haniff

3723

,, ,,

Penang Gardens

in young fruit, June

-do-

3762

*Balanocarpus Curtisii*

Penang, Mt. Erskine

in flower, June

-do-

3721 &amp; 3722

,, ,,

Penang, Waterfall

in fruit, June

-do-

3740

,, *penangianus*

Penang, Govt. Hill

in fruit, June

-do-

3714

,, ,,

Penang, Waterfall

in fruit, June

-do-

3748

,, *latifolius*

Penang, Ayer Itam

in flower, June

-do-

3727

*Hopea micrantha*

Penang, Ayer Itam

in fruit, June

-do-

3732

*Shorea materialis*

Johore, Mersing

in fruit, May

Foxworthy

520/55



Parashorea malaanonan (Mocanera).

1. Regarding Merrill's interpretation of this species, please see whether my remarks made on "Nomen Dubium or Mixtum Compositum" (Gardens Bull.IX. pp.244-249) and on Lectotype (ibid pp.296-299) are helpful in the solution of the problem.
2. Proposals made without giving any adequate reasons may be ignored (cf. Gard.Bull.IX p.249 sub.E). "What is easily affirmed is also easily denied" has been an accepted principle in logic. Merrill, in making his first proposal in 1908 (?) rejected the considered opinions of the experienced botanists who worked previously on the family. If he could set aside their opinions so lightly, why not others give a similar treatment to Merrill's opinions? The basic aim of the Rules is to do away with nomenclatorial dictators (cf. Furtado in Blumea Suppl.I.1937).
3. In discarding Merrill's opinion and typifying the species, you are giving "adequate botanical reasons" and so you are not exposing yourself to the same criticisms as Merrill.
4. The amendment regarding the capitalization of specific epithets derived from vernacular names has been passed at the last Congress, Amsterdam (1935). This amendment is to Rec.XLIII and not to any rule. It will be incorporated in the supplement to the Rules expected to be issued in 1940. However it seems logical to spell all specific epithets with small letters (cf. Gard.Bull.IX pp.356-358).

C.X.F.



Official Memorandum.

(Gen. 67)

21.10.37

From..... 3 vols.

To .....

2505-6-5-36-R 15/51.

Dear Corner,

I am anxious to get the "Atlas" of  
Kordes & Valtin "Bloemsorten van Java." Can you  
tell me <sup>3 vols.</sup> how ~~many~~ it is published - how many volumes,  
title, etc. Have you any idea of the probable cost.

2. How many volumes of the "B. van J." have been  
published? I - XIII (1899-1914).

Many thanks,

Yours sincerely,

Chas. L. ...

P.S. Can I make any further  
observations on Daerydemi in  
Pine Tree Hill? H. F20/57



*It is requested that the following number be quoted in the reply to this letter, and that replies be addressed to the office, and not to individuals by name.*

No. 122 in F.R.O. 70/35.

FOREST RESEARCH INSTITUTE,  
KEPONG, SELANGOR, FED. MALAY STATES.

21st October, 19 37.

Dear Corner,

Thank you very much for your letter of 16th inst.. I am very glad to have your, and Furtado's, notes on the Parashorea question. I shall not now attempt to reply to all the points you raise. I'm afraid my original note did not explain the position as clearly as it should have done and I am rewriting it entirely. I have been studying my material, and some additional specimens, since that note was written and have changed my views about the new species P. tomentella. I think I shall make it a variety and not a new species, although it may later be desirable to raise it to specific rank. I have written to van Slooten for some specimens that will be of great assistance and if you can give me until they arrive (2 or at most 3 weeks) I should be able to give you a much more satisfactory note for publication.

The problem of Merrill's interpretations remains the same. I agree with your general attitude but I hardly think one can expect proof in all cases. One can compare an author making an interpretation to the learned judge who convicts on circumstantial

E.J.H. Corner, Esq.,

Botanic Gardens,

S I N G A P O R E.



evidence. There can usually be no absolute incontrovertible proof in the absence of a herbarium specimen but if, the evidence being considerable (i.e. if the description is more than a brief statement equally applicable to more than one known plant) and having being weighed critically, the plant the botanist is trying to identify with the description cannot, as it were, establish an alibi, he would be justified in convicting. If the botanist does not observe these conditions - is non-critical and ignores alibi - or if fresh evidence has been produced, we are entitled, on behalf of the convicted plant, to claim a retrial.

In the case of the plant interpreted as P. malaanonan Merrill has ignored the alibi. The fruits of Blanco's Mocanera malaanonan had wings only 3 in. long and a persistent 3- partite stigma - characters which do not apply to P. malaanonan Merr. Therefore I think it quite legitimate to give the plant a retrial. Having carried this out my judgement is something like this - "The accused (P. malaanonan Merr.) is suspiciously like Mocanera malaanonan and Merrill may conceivably be correct in saying it is the same thing. But he has violated the traditions of British justice by ignoring certain evidence which establishes an alibi. I ought to reverse his judgement but, being very anxious not to undermine the authority of the courts, and having no wish to vex Mr. Justice Merrill who is such a nice old chap and anyway might die of a heart attack any moment, I am going to uphold his judgement. But I, of course, am a very soft-hearted, and therefore bad, judge.

Shall write about Dacrydium later and just received your notes.

Yours sincerely,

P.L.  
Has this recommendation to ~~de~~ capitalize  
vernacular epithets been embodied in the  
rules? Or is it going to be in the next  
edition? Or what?  
H.P. 2.10 F20/59



Official Memorandum.

..... 19.....

From.....

To.....

2505-6-5-30-R 45/51.

Dear Porter,

Wald. Nor & Co. are now up Chungu Tuggi &  
 I'm having a boat built for them near Gutung Kumpoh.  
 2. Woodall has delayed my paper for Genl. Bull. but  
 I shall have it ready in one week's time or at very latest  
 25<sup>th</sup> inst. when I go up Fraser's Hill for the week.  
 3. I'm enclosing a copy of my notes on *Pharosia malayanorum*  
 to be included in my paper. Will you please give me  
 your opinion of my treatment of Merrill's interpretation (p. 3).  
 I don't want to discard Merrill's name if it can be avoided  
 and if I do so will serve no useful purpose, but



From. The Forest Botanist,  
Forest Research Institute, Kepong.

To. E.J.H. Corner, Esq.,  
Botanic Gardens, Singapore.

111 in F.R.O. 70/35.

Your 329/m

I acknowledge with thanks receipt of the botanical material concerned for which the following are my identifications -

Herbarium Number	Vernacular name supplied	Preferred Vernacular Name in F.M.S.(if any)	Botanical Identification.	Family
s.n.	-	keladan	Dryobalanops oblongifolius Dyer	Dipterocarpaceae
s.n.	-	merawan	Hopea aff. H.Griffithii Kurz or H.borneensis Heim	"
- 30853	balau	balau tembaga	Shorea ? elliptica Burck	"
- 30857	-	balau merah	Shorea collina Ridl.	"
- 30863	penak	chengal	Balanocarpus Heimii King	"
- 30867	"	"	Balanocarpus Heimii King	"
- 30985	-	melantai	Shorea macroptera Dyer	"
- 30988	-	merawan	Hopea ? Dyeri Heim	"
- 31429	-	keruing gondol	Dipterocarpus Kerrii King	"
- 31547	temak	temak	Shorea cochinchinensis Pierre	"
- 32025	-	chengal	Balanocarpus Heimii King	"
- 32063	-	resak laru	Vatica Staffiana (King) W. & A.	"
- 32194	-	keladan	Dryobalanops oblongifolius <sup>a</sup> Dyer	"
- 32213	-	-	Shorea gratissima Dyer	"
- 32438	resak	resak laru	Vatica Wallichiana Dyer	"

Dipterocarpaceae

F20/61





*Gesnerac.*

ROYAL BOTANIC GARDENS.

KEW, SURREY.

All communications should be addressed to

THE DIRECTOR,

quoting the following number:—

2/SING/1.

11th September, 1941.

Dear Holttum,

You will remember the Didymocarpus you sent me, about which various letters have passed between us. Your last letter was dated December 19th, 1940, to which I replied on February 22nd, 1941. You will be interested to hear that our plants have again flowered this year, but as Burtt has, unfortunately, left to do war work, I cannot give you any very definite information about it. I have had a description drawn up of the plant, but as our material of Gesneraceae has been evacuated to a safer part of England, I am afraid I must leave the matter of a name until the end of the war.

It is quite a nice plant, though it does not grow here as freely as I should like to see it. The flower is whitish to palish blue-lilac on the upper side and whitish on the other side, bluish-mauve on the inside of the upper portion and white below. We find it is sweet scented in the early morning. The leaves are shining and bright green above and very pale green beneath with conspicuous darker veins.

Obviously there is a good deal to be done in revising the Gesneraceae, but until the times become normal I am afraid we cannot do anything further.

From all that we have been able to discover, it appears to be a new species of Didymocarpus in Ridley's sense, and possibly belongs to the section Boeopsis, but we can find no species in our collections at all closely allied to it. Our plant, as I think you will remember, was grown here from seed, which Nauen sent in 1938, and the seed was collected at Kota Tinggi, Johore.

Yours sincerely,

*Arthur Hill*  
DIRECTOR.

R. E. Holttum, Esq.,  
Botanic Gardens,  
Singapore,  
Straits Settlements.

F20/62





ROYAL BOTANIC GARDENS,  
KEW, SURREY.

22nd February, 1941.

All communications should be  
addressed to — THE DIRECTOR.

2/SING/1.

file

335/40

Dear Holttum,

Thank you for your letter  
of December 19th about the Didymocarpus.  
Burtt has now left us for a job in the  
Ministry of Supply, but I hope that we  
may be able to get a description made  
from the living plant when it flowers  
again, which I hope will be in May or  
June this year.

seeds of Thank you also for your offer  
of Lobelia dresdenensis, which I shall  
be very pleased to have.

Yours sincerely,

*Arthur Hill*

DIRECTOR.

ENGLAND

R. E. Holttum, Esq.,  
Botanic Gardens,  
Singapore,  
Straits Settlements.

F20/63



## DRAFT

Fair Copy

Signed by

335/40

19

T.

Sir Arthur W. Hill FRS

R. B. G. Hill

Sir,

Dear Hill,

Yours 2/Sep./1 of 1950.

I received your letter a few days ago, and have had another look at our *Gemeraceae*. Ridley's division of *Didymocarpos* is very casual one, and I certainly should not make the section *Boepphia* into a new genus without a ~~rather~~ careful revision of the whole group. This ~~must~~ <sup>should</sup> really be done here by someone with ~~plant~~ access to the living plants; and I hope but it is a considerable undertaking and the plants are in the mountain parts, not taking kindly to cultivation in ~~the~~ <sup>open</sup> air.

I can see no ~~objection to~~ <sup>objection to</sup> your describing the plant as a new species of *Didymocarpos*; and then when that someone studies the genus and its allies, if he can transfer it to another genus if necessary. I do not ~~see how we can avoid having a~~ <sup>see how we can avoid having a</sup> ~~new~~ <sup>new</sup> genus for

It is possible that I may see it the Kula Niggi district during the Christmas holidays and I might find your plant again. There is nothing in our herbarium from that district which would fit your description.

Everton

F20/64



We will send you seed of Lobelia edwardsiana as soon as the next lot is ripe. The weather is very hot at present and not very good for collecting such small seeds. It must be a variety or hybrid of L. siphilitica. I could not find the name published anywhere. Even Addison ~~thinks~~ <sup>says</sup> it has a distinctly different habit from L. siphilitica; but of course ~~perhaps~~ that might be partly due to climatic conditions.

With great kindest regards for the new year from us all  
Yr. friend

Z



D. of G. No. 335/40

Mr. Henderson

Please attached return

any comments?

I may go to Isla Pige  
with Fough at the end of the  
month.

Reyes

17.12.40

Mr. Henderson.

Seen. It would seem safest  
to put it into *D. lymnecopus*.

hwy

F20/65



FT

19. 3. 1937

to request permission to  
 travel to London during the Easter

and to agree on the night of Friday  
 to return on the morning of the

being in town will be in charge.

Yours  
 H. H. H.





ROYAL BOTANIC GARDENS,

KEW, SURREY.

All communications should be addressed to

THE DIRECTOR,

quoting the following number:—

2/SING/1.

19th October, 1940.

Dist. G. No. 335/40

Dear Holttum,

Many thanks for your letters of July 4th and August 8th with regard to Nauen's "Loxocarpus" from Kota Tinggi. I was waiting to have your second letter before sending you a reply, as Burtt, who is working on the species, tells me he had already compared our plant with the description of L. Holttumii and did not think it could be that species as the fruit of our specimen is cylindric. He thinks the plant is not one of those species which Ridley described, though unfortunately we have no material of them at Kew. We should like to describe it as a new species, but the obstacle is the condition of the genera, which appears to need a good deal of revision. I hope you may be able to find some more specimens when you revisit the locality, and should you be thinking of revising the genera of Gesneraceae, please let me know. Otherwise, it may be best for us to draw up a description of this plant as a new species of Didymocarpus. It would be very helpful if you could let us have your views as to whether Didymocarpus & Boeopsis should be made into a distinct genus or not.

I have been reading through your annual report on Gardens for the year 1939 and notice on page 7, among New Herbaceous Plants, that you have been raising Lobelia dresdenensis. As we do not know this plant here, I shall be very glad if you could send us a little seed, as from your account it sounds an interesting plant and I should like to be able to grow it.

With kind regards,

Yours sincerely,

R. E. Holttum, Esq.,  
Director of Gardens,  
Singapore,  
Straits Settlements.

F20/66

*Robert Hill*

*from letters pl*  
*17.12.40*

*add. 17.12.40*



## MEMORANDUM

From

J. L. G.

J.

7.8.40

To

Sir Arthur W. Hill FRS

R. B. G.

Kew, Surrey, England

Dear Sir,

I have received your second letter (2/5/41) on the subject of Nansen's "Loxocarpus" from near Kila Triggi. I was evidently wrong in suggesting that he might have seen L. Holthamii.

In Ridley's *Didy-mocarpus* & Boecklin there is a species named D. puncticulata which is locally common on Spring Park and elsewhere near Kila Triggi, but I do not think it likely that you think it does not have bright green leaves with a shiny upper surface. I am sure that we do not seem to have preserved any specimen here collected by Nansen at the time, and I am



unable at present to shed any more light on the  
subject. ~~Perhaps a visit to the locality - well~~  
~~Next time we visit the locality we will~~  
look out for likely plants. There is no doubt  
that our Generaceae are sadly in need of  
revision.

Yrs sincerely







*Dependent*

ROYAL BOTANIC GARDENS,  
KEW, SURREY.

*Dependent*  
D. of G. No. 335/40

3rd. June, 1940.

All communications should be  
addressed to—THE DIRECTOR.

2/SING/1.

Dear Holttum,

*add. 6/8*

I wrote to you on May 11th  
with regard to the seed of Loxo-  
carpus, which Nauen sent me in  
June, 1938.

We have managed to fertilise  
the flower and have produced a  
good seed pod, and from the  
examination of this, it seems  
clear that the plant should be  
referred to Didymocarpus, as  
Ridley accepts the genus in the  
Flora of the Malay Peninsula.  
We think probably it should be  
placed in his last section  
Boeopsis, but we can find no close  
affinity for it.

I thought, in view of my  
letter of May 11th, you would  
like to have this further informa-  
tion in case you may be able to  
throw some further light on this  
interesting plant.

*F20/68*

R. E. Holttum, Esq.,  
Botanic Gardens,  
SINGAPORE,  
Straits Settlements.

Yours sincerely,

*Arthur Hill*



335/40

MEMORANDUM

From

Svlg

S

4.7.40

To

Sir Arthur W. Hill

Lieut. RBG

Kew, Surrey

Dear Hill

Yours 2/5/41 of 11.5.40

The *Loxocarpus* you mention was probably *L. Holthornii* described by Henderson in ~~our~~ our gardens Bulletin M. 4 p. 412 (1929) - We unfortunately have only the type specimen here, but I think a duplicate of the same collection (Singapore Field No. 18097) was probably sent to Kew.

The species is locally common near *Officer* (M. Triggs) and we will try to get good material next time somebody goes that way.

The *Loxocarpus* species (or what have been described as <sup>in many cases</sup> *in many cases*) in Malaya are very local - I collected distinct-





ROYAL BOTANIC GARDENS.

KEW, SURREY.

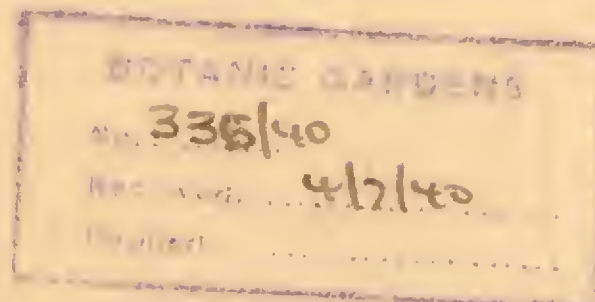
All communications should be addressed to

THE DIRECTOR,

quoting the following number:—

2/SING/1.

11th May, 1940.



Dear Holttum,

Nauen wrote to me on June 27th, 1938, and sent me a packet of seed of Loxocarpus, which he informed me had been gathered from plants growing on boulders in a stream near Kota Tinggi, Johore, on the previous day. These reached us early in July and seedlings came up, but very soon damped off. Fortunately, we kept the pot as it was, and later some more seedlings came up, and now after considerable trouble in keeping the plants alive they have flowered. The flower is singularly like a Loxocarpus flower in general features and the leaves are bright green with a shiny upper surface.

It is a very interesting plant which we cannot match here, and we have not yet succeeded in getting any fruits from our plant, though I had one of the flowers. fertilised yesterday.

I should be very glad to know if you have identified the plant at Singapore, and also whether you possess any fruits, as it appears to be a new species and without fruits we cannot be sure whether the genus is correct.

Should you have any duplicate pressed specimens of the plant, and especially any fruits, I shall be very glad to have them if you could send them, together with any information you may be able to give me about this interesting plant.

Yours sincerely,

Arthur Hill

R. E. Holttum, Esq.,  
Botanic Gardens,  
SINGAPORE,  
Straits Settlements.

The germination was  
like that of Streptocarpus  
one cotyledon

F20/70

18097  
L. Holttum's  
Specimen 412  
June 1940

Streptocarpus



Replies 11/7/39

Zesneraceae

23.2.39

Dear Henderson

Thanks for yours of 16th & also for Fieldbook & two publications by Danser. The one on Nepenthaeae interested me particularly & I'd like to get a copy for myself: are they easily obtainable?

I'll shortly be sending a box of my latest collections & will return the singles in it.

If you'll let me know the date the monkeys are expected in Penang we'll make an effort to go & see them at work.

Re the enclosed Parabea (1496) — I make this Loxocarpus caeruleus Ridd. from Ridley's key & description (I have extracted these from F.M.P. for Zesneraceae) & is, I see, recorded from Maxwell's. Do you agree? I am sorry I didn't send fruit before & think you'll find that it will fix it.

I shall be up Maxwell's from March 4-18th & hope to find a few good things, well explored though the place is. We cannot go further afield this time owing to the presence of the new-born & I must take my leave now as I'm acting as manager as from April & shall be very busy then.

If I get seed of Zesneraceae shall I send straight to Kew, or do you like them at S'pore first? I intend growing all I can myself & already have several spp. in pots.

Yours,

Gordon H. Spare

P.S. Do you know what the enclosed fragment is — 2014, bright orange, grown in pots locally?



Ying Tsiang  
Botanical Institute  
Sun Yatsen University  
290 & 314 Ma Tau Wei Road  
Kowloon, Hongkong  
Telephone 58282

蔣 英 用 牋  
國立中山大學農林植物研究所  
駐港辦事處  
香港九龍碼頭圍道二九〇,三一四號  
電話五八二八二

Dr. R. E. Holttum, Director,  
Botanic Gardens, Singapore, S. S.

July 27, 1939.

Dear Dr. Holttum:

I have just returned from a field trip in Yunnan. Your two letters regarding the loaned specimens of Gesneriaceae were transferred to Professor Woon-Young Chun, Director of this Institute. In the hope that he will reply you personally.

With best thanks,

Yours sincerely,

Ying Tsiang

Received  
from Holttum  
R.E. 39